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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,149	01/29/2002	Toshihiro Takagi	3064IT/50895	4052
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EXAMINER SHEPARD, JUSTIN E				
ART UNIT 2623		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/058,149

Applicant(s)

TAKAGI ET AL.

Examiner

Justin E. Shepard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see Appeal Brief, filed 1/23/08, with respect to the rejection(s) of claim(s) 1-3 and 5-8 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kessler in view of Ikeguchi in view of Eyer (6,483,547).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessler in view of Ikeguchi in view of Eyer (6,483,547).

Referring to claim 1, Kessler discloses a channel selection device used in a digital broadcasting receiver (column 3, lines 53-66) comprising:

a receiver for receiving an encoded digital broadcasting signal originated from a broadcasting station (Abstract);

a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 158);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 1, parts 104 and 108; column 5, lines 38-45); and

an input device for inputting a user's instruction for channel selection to the control unit (column 5, lines 38-45),

wherein the receiver receives the digital broadcast which are originated through different physical channels, the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels (figure 2) for originating contents there through and also having a table containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 1; column 6, tables 2-4),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory (column 5, lines 38-45; figure 5A, parts 506 and 508);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed in which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 38-51);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is channel information

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for some physical channels in the memory (column 5, lines 38-51; figure 5A, parts 506 and 508); and

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the channel map in the memory a fourth technique is employed in which either

a desired channel is selected by referring to the channel map (column 5, lines 38-51), or

a desired channel is selected based on the physical channel information in the channel map among the channels over a plurality of physical channels and of employing the second technique of selecting a desired channel among the channels in the same physical channel.

Kessler does not disclose a device wherein the receiver is a digital/analog broadcasting receiver;

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display;

changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

when there is channel information for some physical channels in the memory and when a channel to which the current channel is upward/downward changed by the

second technique goes out of the current physical channel range a third technique which is the first technique is employed;

wherein the channel table is a VCT.

In an analogous art, Ikeguchi teaches a device wherein the receiver is a digital/analog broadcasting receiver (figure 1);

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 1);

changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 4, lines 40-54);

when there is channel information for some physical channels in the memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed (column 4, lines 40-54).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the digital/analog system taught by Ikeguchi to the device disclosed by Kessler. The motivation would have been to enable the analog version of the program to be viewed when the digital version fell below a certain quality threshold (Ikeguchi: column 6, lines 1-13).

Kessler and Ikeguchi do not disclose a device wherein the channel table is a VCT.

In an analogous art, Eyer teaches a device wherein the channel table is a VCT (column 4, lines 1-9 and 22-35).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the VCT taught by Eyer to the device disclosed by Kessler and Ikeguchi. The motivation would have been to follow known standards to save on development costs.

Referring to claim 2, Kessler discloses a channel selection device used in a digital broadcasting receiver (column 3, lines 53-66) comprising:

- a receiver for receiving an encoded digital broadcasting signal originated from a broadcasting station (Abstract);

- a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 158);

- a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 1, parts 104 and 108; column 5, lines 38-45); and

- an input device for inputting a user's instruction for channel selection to the control unit (column 5, lines 38-45),

wherein the receiver receives the digital broadcast which are originated through different physical channels, the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels (figure 2) for originating contents there through and also having a table containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 1; column 6, tables 2-4),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory (column 5, lines 38-45; figure 5A, parts 506 and 508);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed in which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 38-51);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is channel information for some physical channels in the memory (column 5, lines 38-51; figure 5A, parts 506 and 508); and

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the memory a fourth technique is employed in which a desired channel is selected on the basis of the physical channel information in the channel map

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among the channels over a plurality of physical channels and, it is selected by the second technique among the channels in the same physical channel (column 5, lines 38-51).

Kessler does not disclose a device wherein the receiver is a digital/analog broadcasting receiver;

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display;

changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

when there is channel information for some physical channels in the memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed;

wherein the channel table is a VCT.

In an analogous art, Ikeguchi teaches a device wherein the receiver is a digital/analog broadcasting receiver (figure 1);

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 1);

changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted

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to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map (column 4, lines 40-54);

when there is channel information for some physical channels in the memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed (column 4, lines 40-54).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the digital/analog system taught by Ikeguchi to the device disclosed by Kessler. The motivation would have been to enable the analog version of the program to be viewed when the digital version fell below a certain quality threshold (Ikeguchi: column 6, lines 1-13).

Kessler and Ikeguchi do not disclose a device wherein the channel table is a VCT.

In an analogous art, Eyer teaches a device wherein the channel table is a VCT (column 4, lines 1-9 and 22-35).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the VCT taught by Eyer to the device disclosed by Kessler and Ikeguchi. The motivation would have been to follow known standards to save on development costs.

Referring to claim 3, Kessler discloses a channel selection device used in a digital broadcasting receiver (column 3, lines 53-66) comprising:

a receiver for receiving an encoded digital broadcasting signal originated from a broadcasting station (Abstract);

a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 158);

a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the broadcasting signal of a selected channel (figure 1, parts 104 and 108; column 5, lines 38-45); and

an input device for inputting a user's instruction for channel selection to the control unit (column 5, lines 38-45),

wherein the receiver receives the digital broadcast which are originated through different physical channels, the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels (figure 2) for originating contents there through and also having a table containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 1; column 6, tables 2-4),

wherein the control unit, when trying to select a channel based on a channel upward/downward changing instruction sent from the input device (column 5, lines 38-45), appropriately uses any one of the following four techniques of:

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is no channel information in the memory a first technique is employed in which the frequency is shifted to search for a desired physical channel to thereby select a channel contained in a detected physical channel and also store information of the channel in the channel map;

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when there is channel information of a current physical channel in the memory a second technique is employed in which a VCT thereof is referenced to select a sub-channel in the physical channel (column 5, lines 38-51);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device, when there is channel information for some physical channels in the memory and when a channel to which the current channel is upward/downward changed by the second technique goes out of the current physical channel range a third technique which is the first technique is employed; and

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when information of all the channels is stored in the memory a fourth technique is employed in which a desired channel is selected by referring to the channel map.

Kessler does not disclose a device wherein the receiver is a digital/analog broadcasting receiver;

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display;

wherein the channel table is a VCT.

In an analogous art, Ikeguchi teaches a device wherein the receiver is a digital/analog broadcasting receiver (figure 1);

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 1);

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the digital/analog system taught by Ikeguchi to the device disclosed by Kessler. The motivation would have been to enable the analog version of the program to be viewed when the digital version fell below a certain quality threshold (Ikeguchi: column 6, lines 1-13).

Kessler and Ikeguchi do not disclose a device wherein the channel table is a VCT.

In an analogous art, Eyer teaches a device wherein the channel table is a VCT (column 4, lines 1-9 and 22-35).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the VCT taught by Eyer to the device disclosed by Kessler and Ikeguchi. The motivation would have been to follow known standards to save on development costs.

Referring to claim 5, Kessler discloses a digital/analog broadcasting receiver equipped with the channel selection device according to claim 1, for receiving a digital broadcast according to the ATSC (Advanced Television Systems Committee) standard (column 1, Field of the Invention).

Kessler does not disclose a device receiving analog broadcast according to the NTSC (National Television Systems Committee) standard.

In an analogous art, Eyer teaches a device receiving analog broadcast according to the NTSC (National Television Systems Committee) standard (column 4, lines 52-53).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the NTSC standard taught by Eyer to the device disclosed by Kessler and Ikeguchi. The motivation would have been to follow known standards to save on development costs.

Referring to claim 6, Kessler discloses a channel selection device used in a digital broadcasting receiver (column 3, lines 53-66) comprising:

- a receiver for receiving an encoded digital broadcasting signal originated from a broadcasting station (Abstract);

- a memory for storing, as a channel map, channel information contained in the broadcasting signal decoded by the digital decoder (figure 1, part 158);

- a control unit for controlling the sections of the receiver such that, upon reception of the channel selection instruction from the input device, the receiver receives the

broadcasting signal of a selected channel (figure 1, parts 104 and 108; column 5, lines 38-45); and

an input device for inputting a user's instruction for channel selection to the control unit (column 5, lines 38-45),

wherein the receiver receives the digital broadcast which are originated through different physical channels, the digital broadcasting signal having, in one main channel, one or a plurality of sub-channels (figure 2) for originating contents there through and also having a table containing virtual channel information providing the sub-channels with a correlation with an analog broadcasting physical channel (column 5, table 1; column 6, tables 2-4),

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when the sub-channel is changed in the current main channel a first procedure is employed in which the VCT in the current physical channel is referenced to select an upward/downward sub-channel (column 5, lines 38-51; figure 5C, parts 554 and 558);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is no channel data of a main channel to which the current main channel is to be changed and no channel data of the sub-channel (figure 5D, part 580);

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and if there is the channel data of the main channel to which the current main

channel is to be changed (figure 5A, part 506 and 512) and there is no sub-channel data a third procedure is employed in which the main channel data is referenced to change the main channel and then refers to the VCT detected in the corresponding physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number (figure 5D, parts 578; column 4, lines 62-65); and

wherein when trying to select a channel based on a channel upward/downward changing instruction received from the input device and when a main channel is to be changed and there is the channel data of a main channel to which the current main channel is to be changed and the sub-channel a fourth procedure is employed in which the channel data is referenced to change the main channel and the sub-channel, thus selecting the channel (column 5, lines 38-51).

Kessler does not disclose a device wherein the receiver is a digital/analog broadcasting receiver;

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display;

where if there is no channel data of a main channel to which the current main channel is to be changed and no channel data of the sub-channel a second procedure is employed in which the reception frequency is shifted upward/downward to thereby search for other physical channels and then refers to the VCT of a detected physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number.

wherein the channel table is a VCT.

In an analogous art, Ikeguchi teaches a device wherein the receiver is a digital/analog broadcasting receiver (figure 1);

a digital decoder for decoding the digital/analog broadcasting signal received from the receiver and then outputting the signal to a display (figure 1);

where if there is no channel data of a main channel to which the current main channel is to be changed and no channel data of the sub-channel a second procedure is employed in which the reception frequency is shifted upward/downward to thereby search for other physical channels and then refers to the VCT of a detected physical channel, thus selecting a sub-channel having the largest/smallest sub-channel number (column 5, lines 40-54).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the digital/analog system taught by Ikeguchi to the device disclosed by Kessler. The motivation would have been to enable the analog version of the program to be viewed when the digital version fell below a certain quality threshold (Ikeguchi: column 6, lines 1-13).

Kessler and Ikeguchi do not disclose a device wherein the channel table is a VCT.

In an analogous art, Eyer teaches a device wherein the channel table is a VCT (column 4, lines 1-9 and 22-35).

At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the VCT taught by Eyer to the device disclosed by Kessler and Ikeguchi.

The motivation would have been to follow known standards to save on development costs.

Claim 7 is rejected on the same grounds as claim 6.

Claim 8 is rejected on the same grounds as claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/

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Supervisory Patent Examiner, Art
Unit 2623

JS